

CLAIMS

1. An incinerator comprising:

a cylindrical combustion chamber; and

a plurality of combustion-promoting blast pipes each of which is disposed so as to project from one location on an inner wall of the combustion chamber, extend in a vertical direction thereof and exit to exterior from another location, wherein

the combustion-promoting fluid blast pipes are of a triple-pipe construction, each comprising an air-supply pipe, a steam/gas-supply pipe which is provided concentrically outside of the air-supply pipe for supplying steam or combustible gas, and a water pipe which is provided concentrically further outside thereof for protecting the air-supply pipe and the steam/gas-supply pipe from heat, and a plurality of nozzles are provided on each of the combustion-promoting fluid blast pipes, the nozzles being positioned facing in one circumferential direction of the combustion chamber so that a combustion-promoting fluid blown out from the combustion-promoting fluid blast pipes forms a swirling flow within the combustion chamber; and

the air-supply pipes and the steam/gas-supply pipes in the combustion-promoting fluid blast pipes are connected respectively to a high-pressure air-supply source and a steam/gas-supply source, so that air and either steam or combustible gas or both can be blown from each of the supply sources into the combustion chamber as the combustion-promoting fluid via the combustion-promoting fluid blast pipes.

2. An incinerator comprising:

a cylindrical combustion chamber; and

a plurality of combustion-promoting blast pipes each of which is disposed so as to project from an inner wall of the combustion chamber and extend in a vertical direction thereof, wherein

the combustion-promoting fluid blast pipes are of a quadruple-pipe construction, each comprising an air-supply pipe, a steam-supply pipe which is provided concentrically outside of the air-supply pipe, a combustible-gas supply pipe provided concentrically outside of the steam-supply pipe and a water pipe which is provided concentrically further

outside thereof for protecting the air-supply pipe, the steam-supply pipe and the combustible-gas supply pipe from heat, and a plurality of nozzles are provided on each of the combustion-promoting fluid blast pipes, the nozzles being positioned facing in one circumferential direction of the combustion chamber so that a combustion-promoting fluid blown out from the combustion-promoting fluid blast pipes forms a swirling flow within the combustion chamber; and

the air-supply pipes, the steam-supply pipes and the combustible-gas-supply pipes in the combustion-promoting fluid blast pipes are connected respectively to a high-pressure air-supply source, a steam-supply source and a combustible-gas supply source, so that steam and combustible gas can be selectively blown from each of the supply sources air into the combustion chamber as the combustion-promoting fluid via the combustion-promoting fluid blast pipes.

3. The incinerator as claimed in claim 1 or 2, wherein the combustion-promoting fluid blast pipes provided within the combustion chamber project from the inner wall of the combustion chamber in a radial direction.
4. The incinerator as claimed in claim 1 or 2, wherein the combustion-promoting fluid blast pipes provided within the combustion chamber are disposed on respective sides of a hypothetical polygon inscribed in the combustion chamber when the combustion chamber is viewed in a transverse cross section.
5. The incinerator as claimed in claim 4, wherein the hypothetical polygon inscribed in the combustion chamber is a regular tetragon, which defines the installation position of the combustion-promoting fluid blast pipes.